DB Name	Query	Hit Count	Set Name
USPT	l5 same l8	5	L14
USPT	l5 and l8	71	L13
USPT	l5 same l6	3	L12
USPT	l5 and l6	51	L11
USPT	l6 same l8	3131	L10
USPT	l6 and l8	8990	L9
USPT	(ion or anion or cation) adj (exchange$2)	68206	L8
USPT	l5 same l6	3	L7
USPT	electrode	250290	L6
USPT	l3 same l4	359	L5
USPT	gold or platinium or palladium or rhodium or ruthenium	143999	L4
USPT	l1 same l2	1234	L3
USPT	(sodium adj sulfite) or (sodium adj sulphite) or (hydrazine) or (potassium adj borohydride)	41975	L2
USPT	(metal) near3 (reduc$4)	43822	L1

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L7: Entry 3 of 3 File: USPT Jul 1, 1975

DOCUMENT-IDENTIFIER: US 3892592 A
TITLE: Method of manufacturing electrodes for fuel cells

BSPR:
A mixture of nickel and copper may be obtained by decomposition of salts of both metals at elevated temperatures, reduction of the salts with hydrazine or the like in an aqueous alkali solution or electrodeposition of said metals. A mixture of nickel boride and copper may be obtained by reduction of salts of both compounds with sodium borohydride or the like. While these mixtures may be prepared by mixing the respective ingreidents prepared separately, it appears that a better result can be obtained when the mixtures are formed by reducing a mixed solution of the respective salts. The mixture thus obtained is then combined with the known catalysts. In this case, platinum or palladium may be incorporated in the mixture concurrently with the preparation of said mixture by mixing a salt of platinum or palladium with the salts of the metals constituting said mixture, or may alternatively be added to the mixture after preparation of the latter. One of the most preferable processes for forming the catalyst layer comprises the steps of forming a mixture layer of nickel and copper or nickel boride and copper on a porous sintered metal substrate, particularly on a sintered nickel substrate, using said sintered usbstrate as an electrode, and thereafter depositing a known catalyst metal, such as palladium or platinum, on said mixture layer from a salt of said metal by making use of the difference in ionization tendency. This process is simple and enables an electrode to be obtained which has an active catalyst. The present inventors have found that in operating the process described above, highly efficient deposition of platinum or palladium and a strong bond of the same with the substrate electrode can be obtained by using, as a solvent for the platinum salt or palladium salt, an organic solvent, for example, alcohol or acetone containing slight amounts of water and acid instead of using water only. It has also been found that where platinum or palladium is to be deposited on a substrate electrode consisting solely of nickel in such an organic solvent, the platinum or palladium partially remains in the solvent without completely depositing on the substrate even when the depositing reaction system is left to stand over a lengthy period but when copper is incorporated in the substrate, the platinum or palladium can be deposited completely and furthermore the bond between the deposited platinum or palladium and the substrate is stronger than in the case of depositing the same completely using a solvent consisting mainly of water as a solvent. Namely, addition of even a small amount of copper brings about such a remarkable effect as described above.

L7: Entry 1 of 3 File: USPT Mar 23, 1999

DOCUMENT-IDENTIFIER: US 5885535 A
TITLE: Process for extracting and recovering silver

BSPR:
To prevent this trouble, the raw material is previously treated with a small amount of weak reducing agent, so that impurities (such as gold which is reduced at a higher potential than silver) are selectively reduced into metal or simple substance. Examples of such a reducing agent include sulfur dioxide, sulfite, hydrazine and salt thereof, and oxalic acid, which are commonly used for selective recovery of gold. Of these examples, sulfite (such as sodium hydrogen sulfite) is most desirable because of its sufficiently high reaction rate, its reaction product having no effect on the subsequent steps, and its commercial availability. The reducing potential should be about 100-200 mV with respect to the Ag/AgCl electrode. A potential lower than 100 mV causes silver to be gradually reduced, and a potential higher than 200 mV prevents the complete reduction of gold. Incidentally, the reduced gold (in the metallic form) is not extracted into the organic phase during extraction in the process of the present invention but is recovered separately from extraction residues by recycling to the dry process.

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L7: Entry 2 of 3 File: USPT Jun 26, 1979

DOCUMENT-IDENTIFIER: US 4159367 A
TITLE: Hydrogen electrochemical cell and rechargeable metal-hydrogen battery

DEPR:
An improved hydrogen electrode in accordance with the present invention was formed by mixing together 100 gm of activated carbon particles having an average particle size of 0.1 .mu.m and 60 gm of an aqueous dispersion of a hydrophobic binder comprising polytetraflurorethylene in a concentration in the binder of 45% by weight. The resulting mixture was then extruded as a sheet having the following dimensions 25 cm.times.25 cm. The sheet was then air dried at 680.degree. F. for one hour, after which it was immersed in an acetone solution containing 0.1% by weight of palladium nitrate. The sheet was withdrawn from the acetone solution after two seconds, after which the palladium nitrate which had been deposed therein from the acetone solution was reduced to palladium metal with hydrazine by the following procedure: the impregnated sheet is reacted with an aqueous solution containing 10 weight percent hydrazine. The reduction procedure resulted in a concentration of 0.005%, by weight of the sheet, of palladium metal in the sheet. The resulting finished sheet had a porosity of about 50%. A nickel screen having an average U.S. standard mesh size of 70.times.70 was then coated on one side thereof with an aqueous dispersion of fluorinated ethylene-propylene polymer having a concentration in the dispersion of about 30% by weight. While the coating was still tacky, the coated side of the screen was attached to one side of the above-described sheet under pressure and dried in place to firmly secure the screen to the sheet. An improved hydrogen electrode was thus formed which was suitable for use in the battery of the present invention. A plurality of G-12 (epoxy-glass laminate) gaskets having the following shape and size dimensions were used: 9.7 cm dia..times.0.189 cm thick. Each gasket had a horizontally extending annular recess therein sufficiently large to receive a nickel plate having the following dimensions: 8.5 cm dia..times.0.013 cm thick. Certain of the nickel plates were imperforate while others of the nickel plates had a central opening therein about 7.2 cm in size.

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 5885535 A

L7: Entry 1 of 3 File: USPT Mar 23, 1999

US-PAT-NO: 5885535
DOCUMENT-IDENTIFIER: US 5885535 A

TITLE: Process for extracting and recovering silver

DATE-ISSUED: March 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Asano; Satoshi	Niihama	N/A	N/A	JPX
Terao; Kaoru	Niihama	N/A	N/A	JPX

US-CL-CURRENT: 423/24; 75/370

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 4159367 A

L7: Entry 2 of 3 File: USPT Jun 26, 1979

US-PAT-NO: 4159367
DOCUMENT-IDENTIFIER: US 4159367 A

TITLE: Hydrogen electrochemical cell and rechargeable metal-hydrogen battery

DATE-ISSUED: June 26, 1979

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berchielli; Aldo S.	Westerly	RI	N/A	N/A
Chireau; Roland F.	Quaker Hills	CT	N/A	N/A

US-CL-CURRENT: 429/38; 429/101, 429/42

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 3892592 A

L7: Entry 3 of 3 File: USPT Jul 1, 1975

US-PAT-NO: 3892592
DOCUMENT-IDENTIFIER: US 3892592 A

TITLE: Method of manufacturing electrodes for fuel cells

DATE-ISSUED: July 1, 1975

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fukuda; Masataro	Takatsuki	N/A	N/A	JA
Iwaki; Tsutomu	Kyoto	N/A	N/A	JA

US-CL-CURRENT: 252/182.1; 427/328

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

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Database: US Patents Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

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Search History

Today's Date: 12/7/2000

DB Name	Query	Hit Count	Set Name
USPT	l5 same l6	3	L12
USPT	l5 and l6	51	L11
USPT	l6 same l8	3131	L10
USPT	l6 and l8	8990	L9
USPT	(ion or anion or cation) adj (exchange$2)	68206	L8
USPT	l5 same l6	3	L7
USPT	electrode	250290	L6
USPT	l3 same l4	359	L5
USPT	gold or platinium or palladium or rhodium or ruthenium	143999	L4
USPT	l1 same l2	1234	L3
USPT	(sodium adj sulfite) or (sodium adj sulphite) or (hydrazine) or (potassium adj borohydride)	41975	L2
USPT	(metal) near3 (reduc$4)	43822	L1

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L14: Entry 3 of 5 File: USPT Feb 14, 1989

DOCUMENT-IDENTIFIER: US 4804592 A
TITLE: Composite electrode for use in electrochemical cells

DEPR:
Layer 36 is comprised of the same materials as layer 34 but the concentrations of carbon black and the unhydrolyzed ion exchange polymer are altered so that the electron transport rate of layer 36 is approximately equal to the proton transport rate thereof. Following hot pressing the mixture as described with respect to layer 34, layer 36 is sprayed with a solution containing platinum, ruthenium, or a mixture thereof. For example, layer 36 is sprayed with an alcohol solution of platinum and ruthenium chlorides at ambient temperature and pressure. Layer 36 is sprayed with an amount of solution necessary to obtain a catalyst loading of 1 mg/cm.sup.2 or less. Subsequently, the catalyst is chemically reduced to convert the catalytic metals to their elemental form. Such chemical reduction may require the use of hydrazine or another moderate reducing agent which can be applied as a liquid.

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L14: Entry 5 of 5 File: USPT May 6, 1986

DOCUMENT-IDENTIFIER: US 4587056 A
TITLE: Process for producing an aliphatic isocyanate

BSPR:
Any of a large selection of palladium or rhodium metals or compounds containing palladium or rhodium can be used in the catalyst system of the carbonylation step of the present invention. These catalysts may be supported on any of a number of known carriers such as active carbon, graphite, silica, alumina, silica-alumina, silica-titania, titania, zirconia, barium sulfate, calcium carbonate, asbestos, bentonite, diatomaceous earth, polymers, ion-exchange resins, zeolite, molecular sieve, magnesium silicate and magnesia, preferably on active carbon, silica, alumina or calcium carbonate. Palladium black and rhodium black or the catalysts prepared by supporting compounds containing these metal ions on a carrier and reducing them with hydrogen or formaldehyde or hydrazine can be used as metallic catalysts. Alloys and intermetallic compounds containing at least one of these metals may be employed. These may be formed between palladium and rhodium or may also contain other elements such as selenium, tellurium, sulfur, phosphorus, antimony, bismuth, copper, silver, gold, zinc, tin, vanadium, iron, cobalt, nickel, mercury, lead, thallium, chromium, molybdenum and tungsten, preferably tellurium or lead.

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Database: US Patents Full Text Database
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Today's Date: 12/7/2000

DB Name	Query	Hit Count	Set Name
USPT	l5 same l8	5	L14
USPT	l5 and l8	71	L13
USPT	l5 same l6	3	L12
USPT	l5 and l6	51	L11
USPT	l6 same l8	3131	L10
USPT	l6 and l8	8990	L9
USPT	(ion or anion or cation) adj (exchange$2)	68206	L8
USPT	l5 same l6	3	L7
USPT	electrode	250290	L6
USPT	l3 same l4	359	L5
USPT	gold or platinium or palladium or rhodium or ruthenium	143999	L4
USPT	l1 same l2	1234	L3
USPT	(sodium adj sulfite) or (sodium adj sulphite) or (hydrazine) or (potassium adj borohydride)	41975	L2
USPT	(metal) near3 (reduc$4)	43822	L1

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Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 4942159 A

L14: Entry 1 of 5 File: USPT Jul 17, 1990

US-PAT-NO: 4942159
DOCUMENT-IDENTIFIER: US 4942159 A

TITLE: Cephem compounds, their production and use

DATE-ISSUED: July 17, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishimoto; Shoji	Hyogo	N/A	N/A	JPX
Tomimatsu; Kiminori	Osaka	N/A	N/A	JPX
Miyake; Akio	Osaka	N/A	N/A	JPX

US-CL-CURRENT: 514/202; 540/222

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 4833134 A

L14: Entry 2 of 5 File: USPT May 23, 1989

US-PAT-NO: 4833134
DOCUMENT-IDENTIFIER: US 4833134 A

TITLE: Cephem compounds

DATE-ISSUED: May 23, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishimoto; Shoji	Hyogo	N/A	N/A	JPX
Tomimatsu; Kiminori	Osaka	N/A	N/A	JPX
Sendai; Michiyuki	Osaka	N/A	N/A	JPX

US-CL-CURRENT: 514/206; 514/203, 540/225

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 4804592 A

L14: Entry 3 of 5 File: USPT Feb 14, 1989

US-PAT-NO: 4804592
DOCUMENT-IDENTIFIER: US 4804592 A

TITLE: Composite electrode for use in electrochemical cells

DATE-ISSUED: February 14, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vanderborgh; Nicholas E.	Los Alamos	NM	N/A	N/A
Huff; James R.	Los Alamos	NM	N/A	N/A
Leddy; Johna	Flushing	NY	N/A	N/A

US-CL-CURRENT: 429/33; 204/283, 429/42

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 4794108 A

L14: Entry 4 of 5 File: USPT Dec 27, 1988

US-PAT-NO: 4794108
DOCUMENT-IDENTIFIER: US 4794108 A

TITLE: 1-carboxymethoxy acetidinones and their production

DATE-ISSUED: December 27, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kishimoto; Shoji	Takarazuka	N/A	N/A	JPX
Sendai; Michiyuki	Suita	N/A	N/A	JPX
Ochiai; Michihiko	Suita	N/A	N/A	JPX

US-CL-CURRENT: 514/210.15; 540/355, 549/549, 560/150, 560/159, 562/564

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 4587056 A

L14: Entry 5 of 5 File: USPT May 6, 1986

US-PAT-NO: 4587056
DOCUMENT-IDENTIFIER: US 4587056 A

TITLE: Process for producing an aliphatic isocyanate

DATE-ISSUED: May 6, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fukuoka; Shinsuke	Kurashiki	N/A	N/A	JPX
Watanabe; Tomonari	Kurashiki	N/A	N/A	JPX

US-CL-CURRENT: 560/341; 560/132, 560/24, 560/25, 560/352

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

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